A SHORT-WINGED FORM OF ONCOPELTUS FASCIATUS DAL.

BY NEELY TURNER

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION
NEW HAVEN, CONN.

A colony of the larger milkweed bug (*Oncopeltus fasciatus* Dal.) has been maintained for the past five years for insecticide studies. Early in 1950 a few short-winged individuals appeared in the colony. The wings were shorter than the abdomen rather than extending two or three millimeters beyond it as in normal individuals. When these short-winged individuals were mated, they produced short-winged offspring. After a suitable stock had been developed, crosses were made with normal bugs. The F_1 generation was normal. The F_2 generation was as follows:

	Normal wings			Short wings		
	♀	♂	Total	♀	♂	Total
F_2 N♀ × SW♂	140	150	290	38	43	81
F_2 SW♀ × N♂	219	221	440	63	76	139

The deviation from 3:1 ratio was not significant statistically.

Back crosses of the F_1 hybrids produced the following results:

	Normal wings			Short wings		
	♀	♂	Total	♀	♂	Total
SW♀ × (SW♀ × N♂) ♂	78	76	154	88	64	152
(SW♀ × N♂) × SW♂	17	20	37	10	15	25
(N♀ × SW♂) ♀ × SW♂	40	38	78	35	49	84
SW♀ × (N♀ × SW♂) ♂	33	35	68	30	24	54

This approximates a 1:1 ratio especially in the two cases in which there were relatively large numbers. These results indicate that the short-winged character is recessive and is inherited as such.

This short-winged character is being used as a marker in studies of inheritance of resistance to poisons. It is available to entomologists, physiologists or geneticists who may be interested in using it.